

Z 316 297 533, 534, 535
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

January 14, 2000

To: Distribution Below

PROJECT XL
SEMI-ANNUAL REPORT

We are pleased to submit the enclosed semi-annual report for the CK Witco OSi Group Sistersville Plant's XL Project. Per our agreement with the US Environmental Protection Agency and the WV Division of Environmental Protection, this report is due on January 31, 2000.

Sincerely,

F. E. Dailey
Plant Manager

DISTRIBUTION

Report Recipients Under the Federal Rule

Mr. Tad Radzinski (3WC11)
U.S. EPA, Region III
Waste & Chemicals Management Division
3WC11
1650 Arch St.
Philadelphia PA 19103-2029

Ms. L. Nancy Birnbaum
Mail Code 2129
U.S. EPA 401 M Street S.W.
Washington DC 20460

Mr. Edward L. Kropp
WV Division of Environmental Protection
Office of Air Quality
1558 Washington Street East
Charleston WV 25311-2599

Copies To:

Mr. Anthony J. Vandenberg
Environmental Protection Department
CK Witco Corporation, Sistersville Plant

Mr. Jonathan McClung
WV Division of Environmental Protection
Office of Air Quality
1558 Washington Street East
Charleston WV 25311-2599

Project XL Mailing List

Sistersville Public Library Project XL File

Project XL Agreements, Notices & Reports File

Federal Correspondence (letter only)

State Correspondence (letter only)

SEMI-ANNUAL REPORT
FOR THE PERIOD JULY 1 TO DECEMBER 31, 1999

FOR PROJECT XL AGREEMENT

Between
CK Witco Corporation OSi Group,

U.S. Environmental Protection Agency, and

West Virginia Division of Environmental Protection

STATUS OF THE XL PROJECT

On October 17, 1997, the Final Project Agreement (FPA) for the CK Witco OSi Group (formerly Witco) XL Project was signed by all parties. On March 30, 1998 CK Witco and the WV Division of Environmental Protection entered into a Consent Order to implement the provisions of the FPA. On September 15, 1998, EPA published the final rule implementing the FPA from a federal perspective. That Federal Register notice (Volume 63, Number 178, Page 49384) includes a great deal of background on this XL project.

Methanol from the capper unit was first shipped for reuse on October 8, 1997. Methanol reuse under the XL agreement officially commenced on October 27, 1997.

The Waste Minimization / Pollution Prevention Study Team was formed December 16, 1997. The WM/PP Advisory Committee was formed on December 30, 1997. The study is complete and CK Witco issued the Final Report on December 11, 1998. Since then, a Plant Pollution Prevention Council has worked to help foster and communicate "P2" ideas, and monitor progress.

The thermal oxidizer for the capper unit vents was started up on April 1, 1998. On July 15, 1998 the performance test for the oxidizer was completed. The oxidizer passed all of the performance requirements, and the results were reported to the EPA and DEP. The oxidizer is reducing total organics in the vent stream by 99.99%, versus the 98% minimum required by the Agreement. Total emissions reductions will be reported in the annual report in July.

SEMI-ANNUAL REPORT REQUIREMENTS

This semi-annual report must contain information as specified by the Federal Rule [40 CFR 264.1080(f)(2)(viii)(B)] implementing this project (as well as the Final Project Agreement, and the corresponding sections of the State Consent Order). Beginning in 1999, on January 31 of each year, the Sistersville Plant shall submit a semiannual written report to the EPA and WVDEP, with respect to the preceding six month period ending on December 31. The

following information is listed in the order prescribed in paragraphs (f)(2)(viii)(B)(1) through (f)(2)(viii)(B)(10) of this rule.

- (1) Instances of operating below the minimum operating temperature established for the thermal incinerator under paragraph (f)(2)(ii)(A)(1) of this section which were not corrected within 24 hours of onset.

July 1 to December 31, 1999	100 hours*
* all from a single event	

- (2) Any periods during which the capper unit was being operated to manufacture product while the flow indicator for the vent streams to the thermal incinerator showed no flow.

January 1 to June 30, 1999	12 hours
July 1 to December 31, 1999	22 hours
Total for 1999	34 hours
Maximum Allowed by Rule During Maintenance or Malfunction	240 hours

- (3) Any periods during which the capper unit was being operated to manufacture product while the flow indicator for any bypass device on the closed vent system to the thermal incinerator showed flow.

January 1 to June 30, 1999	12 hours
July 1 to December 31, 1999	22 hours
Total for 1999	34 hours
Maximum Allowed by Rule During Maintenance or Malfunction	240 hours

- (4) Information required to be reported during that six month period under the preconstruction permit issued under the state permitting program approved under subpart XX of 40 CFR Part 52 Approval and Promulgation of Implementation Plans for West Virginia. [WV Office of Air Quality Regulation 13 Permit]

There is no such information to be reported under the permit.

- (5) Any periods during which the capper unit was being operated to manufacture product while the condenser associated with the methanol recovery operation was not in operation.

None. The capper unit cannot operate to manufacture specification product while the condenser is not in operation. Should the condenser

begin operating improperly, the operator will quickly correct the situation, so that specification product can again be made.

- (6) The amount (in pounds and by month) of methanol collected by the methanol recovery operation during the six month period.

Month	Methanol Collected by the Methanol Recovery Operation, Calculated, lbs
January 1999	48,000
February	57,000
March	21,000
April	34,000
May	29,000
June	0
July	57,000
August	41,000
September	30,000
October	49,000
November	50,000
December 1999	12,000
Total for 1999	428,000

The above values are calculated from the total methanol collected for the year times the proportion of methanol generated (see Item 8, below) in each given month.

- (7) The amount (in pounds and by month) of collected methanol utilized for reuse, recovery, thermal recovery/treatment, or bio treatment, respectively, during the six month period.

Month	Collected Methanol Destination, lbs		
	Reuse	Thermal Recovery / Treatment	Bio-treatment
January 1999	39,820	0	0
February	39,900	0	0
March	114,000	0	0
April	0	0	0
May	38,420	0	0
June	0	0	0
July	39,080	0	0
August	39,240	0	0
September	0	0	0

Month	Collected Methanol Destination, lbs		
	Reuse	Thermal Recovery / Treatment	Bio-treatment
October	40,380	0	0
November	38,100	0	0
December 1999	39,580	0	0
Total for 1999	428,520		
Total Since Commencement of Reuse	929,394	0	0

We have thus met the Performance Standard that, “on an annual basis, the Sistersville Plant shall ensure that a minimum of 95% by weight of the methanol collected by the methanol recovery operation (also referred to as the "collected methanol") is utilized for reuse, recovery, or thermal recovery/treatment.” [40 CFR 264.1080(f)(2)(v)(A)] In fact, 100% has been reused.

- (8) The calculated amount (in pounds and by month) of methanol generated by operating the capper unit.

Month	Methanol Generated by the Capper Unit, Calculated, lbs
January 1999	64,000
February	76,000
March	28,000
April	45,000
May	39,000
June	0
July	76,000
August	55,000
September	40,000
October	66,000
November	67,000
December 1999	16,000
Total for 1999	572,000

As discussed in the Final Project Agreement, a portion of the methanol generated in the capper unit cannot be economically collected, but rather goes to the onsite waste water treatment unit via a steam ejector, or to the thermal oxidizer. This is the difference between the methanol generated (Item 8) and collected (Item 6).

- (9) The status of the WMPP Project, including the status of developing the WMPP Study Report.

The WMPP Study Report was issued to the US EPA and WV DEP by CK Witco on December 11, 1998. The report explains in great detail all the work done during the Study, and our plans for continuing the work.

- (10) Beginning in the year after the Sistersville Plant submits the final WMPP Study Report required by paragraph (f)(2)(vi)(C) of this section, and continuing in each subsequent Semiannual Report required by paragraph (f)(2)(viii)(B) of this section, the Sistersville Plant shall report on the progress of the implementation of feasible WMPP opportunities identified in the WMPP Study Report. The Semiannual Report required by paragraph (f)(2)(viii)(B) of this section shall identify any cross media impacts or impacts to worker safety or community health issues that have occurred as a result of implementation of the feasible WMPP opportunities.

A Pollution Prevention Council was formed and consists of members from throughout the plant at the beginning of 1999, to help foster and communicate "P2" ideas, and monitor progress. Among the P2 opportunities we have been tracking, are documented savings:

Year Opportunity was Implemented	Number of New P2 Opportunities Implemented	Recurring Wastes Prevented, lbs/yr	Recurring Cost Savings*, \$/yr
1997	10	800,000	\$240,000
1998	11	380,000	\$25,000
1999	29	930,000	\$650,000
Three Year Total	51	1,660,000	\$915,000
* Note that these savings do not consider the expense of implementing them. Hence net savings will be less. It is often difficult to assign that expense. For example, a totally new process unit may cost millions of dollars to construct. If that new process produces less waste, how much of the design and construction expense ought to be assigned to the p2 benefits? In the case of a process change being done explicitly for p2 reasons, the expense is more easily determined.			

The last Annual Project Report, issued July 30, 1999, lists in detail the status of pollution prevention opportunities identified during and since the Study. The next annual report will do so as well.

No cross media impacts or impacts to worker safety or community health issues have occurred, as a result of implementing these WMPP opportunities. By far the majority of the opportunities implemented prevent the generation of waste in the first place, and so no cross-media transfers occur. Further, no safety or health issues have been identified for

any of the opportunities implemented. CK Witco carefully considers the potential for such concerns before implementing any facility or operational changes.

CONCLUSION

CK Witco's XL Project has been very successful thus far. We have met all of our requirements, produced the intended superior environmental performance, and have received the temporary deferral from certain regulations. The Project is demonstrating an alternative to previously existing regulations and yielding cost savings to the company.

Please contact Tony Vandenberg of the CK Witco Sistersville Plant (304-652-8812) for further information.